

### **III. REMARKS**

#### **Status of the Claims**

Claims 26, 30, 35, 45 and 49 are amended. Claims 26-54 are presented for further consideration.

#### **The Office Action**

Applicant is pleased to note that claims 47 and 48 are allowed and that claims 39, 41, 44-46, and 51 - 54 contain allowable subject matter.

Applicant has amended, 30, 35, and 45 to overcome the objections raised by the Examiner in the Office Action. It is submitted that the claims, as amended, fully remedy the basis for the objections and rejection. Claims 26 and 49 are amended to more positively claim the breakable interconnecting element. No new matter is presented. The amendments to the claims are not intended to be limiting, are not made for reasons related to patentability, and should not be interpreted to raise issues of estoppel. Further searching should not be needed.

Applicant has considered the Examiner's comments set forth in the Office Action mailed August 1, 2007 and responds in detail below. Reconsideration of the application is respectfully requested in view of the amendments and the following remarks.

Claims 26-28, 30-36, 38, 40, 42, 43, 49, and 50 of this application stand rejected under 35USC102(b), as being anticipated based on the reference Seidel, US Patent No. 6,122,965. The Examiner is respectfully requested to reconsider the rejection in view of the above amendments and the following remarks. This rejection is traversed on the following grounds:

The cited reference Seidel fails to disclose each and every limitation of the claims of this application. It is well settled that a claim is anticipated, "only if each and every

element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." (See CHISOLM, Federal Circuit Guide, Pg. 1221). In particular independent claims 26, as amended, states:

**"wherein each acceleration sensor comprises a first body portion, a second body portion, and a breakable interconnecting element, constructed to break at a predetermined rupture point; said interconnecting element making the first body portion integral with the second body portion and a detector arranged for giving an indication when the breakable interconnecting element of the sensor is ruptured;"**

Equivalent language is contained in the method of claim 49.

The Examiner has failed to differentiate a component that is breakable at a predetermined rupture point, as designed into the device of this application from a component that merely may be broken under some unanticipated event, such as the sensors of Seidel. Seidel does not intend its sensors to be broken. It teaches away from such an occurrence, as the whole purpose of the sensors of Seidel is to provide a continuous flow of data.

The sensors used in Seidel consist of several bending beams 4a-4d that cooperate with piezoresistors 7 to sense bending of the beams in response to acceleration. The piezoresistors change their resistance as they are deformed in the bending process. The claims of this application clearly recite that the interconnecting element of the sensor of this application is breakable and generates an indication on being ruptured. The only data that it is designed to provide is "element ruptured". The piezoresistors of Seidel are intended to be deformed as part of their normal operation and it is this feature for which such components were chosen for use in the system of Seidel. The piezoresistors of Seidel are not intended to be broken, ruptured, or damaged as part of their normal operation, but merely respond to the bending of the beam with a change in resistance. They return to their original shape, function, and resistance for further detection of acceleration. The Examiner's reading of the deformation of the

piezoresistors of Seidel, as breaking or rupturing at a predetermined threshold of stress in the subject application, is contrary to the functioning of the sensors in Seidel and therefore the teaching of Seidel.

The effect of the deformation of the piezoresistor in Seidel is to change the resistive structure of the interconnected bridge, it does not teach that failure of the piezoresistor is in anyway desirable. This differentiates the claimed subject matter of this application. There is no motivation in Seidel to construct the sensor elements in the bridge of Seidel so that they break at a predetermined rupture point under their intended use.

In any event, the present invention provides an advantage over Seidel in that Seidel requires the use of piezoresistive elements, a device for measuring variable resistance and a device for combining the measurements to obtain acceleration. The claimed subject matter of this application does not require such a complex system of components. The device of this application is more simple to construct and significant cost reductions are obtained.

The disclosure of Seidel, therefore does not support the rejection of independent claims 26 or 49 based anticipation. These grounds apply equally to the rejected dependent claims, all of which, by dependency, have the limitations described in the independent claims 26 and 49.

Claim 29 stands rejected under 35USC103(a) based on Seidel in view of the reference Shinji and further in view of Anderson, et al, US Patent No. 5,723,790. This rejection is traversed on the same grounds as indicated above because it relies on the teaching of Seidel as previously applied. In particular the combined teaching fails to disclose or suggest the claimed features of independent claims 26, 49 as indicated above. The deficiencies of Seidel are not remedied by the disclosure of Anderson.

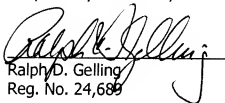
Claim 37 stands rejected under 35USC103(a) based on the teaching of Seidel. This rejection is traversed on the same grounds as indicated above because it relies on the

teaching of Seidel as previously applied. In particular the combined teaching fails to disclose or suggest the claimed features of independent claims 26, and 49 as indicated above.

For all of the above reasons, it is respectfully submitted that all of the claims now present in the application are clearly novel and patentable over the prior art of record, and are in proper form for allowance. Accordingly, favorable reconsideration and allowance is respectfully requested. Should any unresolved issues remain, the Examiner is invited to call Applicants' attorney at the telephone number indicated below.

The Commissioner is hereby authorized to charge payment for any fees associated with this communication or credit any over payment to Deposit Account No. 16-1350.

Respectfully submitted,

  
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11/1/07  
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I hereby certify that this correspondence is being transmitted electronically on the date indicated below to the Mail Stop Amendment, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Date: 1 November 2007

Signature: Frances L. Snow

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